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AUTHORITY

AGO D/A ltr, 29 Apr 1980

DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGAM-P (M) (9 Aug 68) FOR OT RD 682218 16 August 1968

SUBJECT: Operational Report - Lessons Learned, Headquarters, 44th Signal Battalion, Period Ending 30 April 1968

STATEMENT #2 UNCLASSIFIED

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1. Subject report is forwarded for review and evaluation in accordance with paragraph 5b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT RD, Operational Reports Branch, within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure that the Army realizes current benefits from lessons learned during recent operations.

3. To insure that the information provided through the Lessons Learned Program is readily available on a continuous basis, a cumulative Lessons Learned Index containing alphabetical listings of items appearing in the reports is compiled and distributed periodically. Recipients of the attached report are encouraged to recommend items from it for inclusion in the Index by completing and returning the self-addressed form provided at the end of this report.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
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DEPARTMENT OF THE ARMY
HEADQUARTERS, 44TH SIGNAL BATTALION
APO San Francisco 96491

SCCVUG-FF-SC 15 May 1968

SUBJECT: Operational Report of Headquarters, 44th Signal Battalion for Period Ending 30 April 1968, (RCS CSFOR-65) (R1)

SEE DISTRIBUTION

1. Section 1, Operation: Significant Activities.

a. During the reporting period many important visitors toured the communications facilities operated by the 44th Signal Battalion. These visitors included Major General Latta, Brigadier Generals Terry, Van Harlingen, and COL Gardner Pierce, ~~Deputy CG USARV/ARC.~~

b. At the end of the reporting period, the total assigned personnel strength had reached an all time low of 858.

c. The extremely critical shortage of Radio Relay and Carrier Attendants (MOS 31M) was alleviated by the arrival of 34 new replacements.

d. On 24 April 1968, the battalion was tasked to commit four Radio Relay Teams in support of a MACV Contingency Mission Plan. The teams were dispatched and on location in less than 24 hours after receipt of the mission order.

e. All training was conducted in accordance with Department of the Army and local regulations and at no time were operations disrupted for the purpose of training. The unit did not conduct any major troop movements during the reporting period.

f. During the reporting period training inspections were conducted by 1st Signal Brigade, 160th Signal Group, and 44th Signal Battalion. Only minor irregularities were noted. The battalion has not been able to accomplish range firing due to enemy activity. A waiver of range firing requirements has been received from higher headquarters.

g. The rotational loss of technical controllers has created serious controller problems. The semi-tactical nature of the technical control facility at the USARV COMMCEN allows selected 72B's to be trained in MOS 32D. A formal OJT program is being established for this training during the early

FOR OT RD
682218

part of the next reporting period. This is strictly an expedient which does not solve the problem of being without experienced controllers. Due to the length of time required to adequately train technical controllers to be professionally competent, it is essential that MOS 32D and 31M positions be continually filled with experienced, school trained personnel.

h. In addition, MOS 31S personnel performed extra duties in the MOS 31J teletype field due to the severe loss of teletype repairmen. Observations are that most MOS 31S's are performing effectively in this area after being given selected OJT. The 31J shortage has recently been alleviated within the Battalion. Cross training of 31S's into the 31J field continues and is of significant benefit to this unit in maintaining its mission potential.

i. Personnel are continually sent to Southeast Asia Signal School courses and out-of-country schools for various training. This policy will be continued in the future as long as allocations are available. Schools available are: Teletype Circuit Restoral, AN/TRC-110-117, Lenkurt 26C Modem, Telephone Key Systems, Cable Splicer, and Artillery Observer Training.

j. The use of selected recovery of repair parts from salvaged vehicles has had a favorable effect on the battalion's deadline rate. This procedure in no way effects the turn-in of salvaged vehicles in as much as all recovered parts are replaced with the defective part.

k. Proposed Modified Tables of Organization and Equipment (MTOE) for all units of the battalion are still pending DA approval.

l. A list of commanders and staff officers as of the end of the reporting period is attached as Inclosure 1.

m. Attached as Inclosure 2 is the Battalion Organization Chart.

2. Section 2, Lessons Learned: Commander's Observation, Evaluation, and Recommendations.

a. Personnel: None.

b. Operation:

(1) Twin Coaxial Cable CX 42451G

(a) OBSERVATION: During the installation of twin coaxial cable CX 42451G for the Pulse Code Modulation (PCM) System, it was noted that the cable required more care in handling than the standard spiral four cable. When pulled taut, the cable has a tendency to stretch and will eventually break. It was also noted that installing PCM cable parallel to power lines had no effect on the radio information or signal being transmitted which is contradictory to the information contained in the Technical Manual.

(b) EVALUATION. Since cable CX 424510 is actually two coaxial cables in a common covering, the cable should be installed with the same care and consideration given when installing normal coaxial cable i.e., avoid sharp bends and kinks, pay out by hand and avoid pulling the cable directly off the reel.

(c) RECOMMENDATIONS. CX 424510 should be manufactured as a self-supporting cable and made more conducive to field and combat conditions.

(2) IBM 360/20 Vanized Computer

(a) OBSERVATION. The IBM 360/20 computer is housed in a van which is cooled by four air conditioners. During routine preventative maintenance, it was discovered that condensation was present on the computer. This caused occasional circuit outages.

(b) EVALUATION. After a careful study of the moisture problem, it was concluded that the condensation was caused by the operator continually adjusting the thermostats on each of the four air conditioners as the outside temperature fluctuated. These adjustments, coupled with the exterior temperature variations, caused the temperature within the van to vary by ± 30° F. This temperature variation caused the computer components to "sweat", resulting in malfunctions. The moisture problem was eliminated by adjusting the thermostat on each air conditioner so that the temperature at the air conditioner intake was 70° F. Temperature within the van was maintained at 70° ±5° F, by instructing operators not to adjust the thermostat controls, only to turn individual air conditioners on or off as required. A special report on this subject dated 18 April 1968 was forwarded thru channels.

(c) RECOMMENDATIONS. That whenever new electronic equipment (such as the IBM 360/20 computer) is received, a study be made of the variations in temperature to which the equipment will be exposed.

(3) Outside Multi-Pair Cable

(a) OBSERVATION: Overhead cable is vulnerable to mortar, rocket and small arms fire.

(b) EVALUATION. Overhead cabling is easier to install than underground cabling, however, it is much more vulnerable to mortar, rocket and small arms fire. A visual inspection has been made of lines that have been exposed to rockets, mortars and small arms fire. During the forthcoming monsoon season it is expected that cables that have been nicked by these fragments will experience water seepage. This will result in a loss of circuits and a great expenditure of time troubleshooting and repairing the damaged cables.

(c) RECOMMENDATIONS. That in order to eliminate future problems associated with mortar, rocket and small arms fire, buried or underground conduit cable should be installed in place of overhead cable when time, terrain, and the situation permits.

(4) Pulse Code Modulation System

(a) OBSERVATION. Pulse Code Modulation (PCM) multiplex converters, CV 1548, do not have the capability to convert 1600 cps to 20 cps in the 4 wire position. Certain circuits are engineered to convert 1600 cps to 20 cps, and vice versa, at strap through locations. This is the case where a circuit is strapped from PCM equipment to the AN/TCC-13. The CV 1548 cannot convert in the 4 wire position.

(b) EVALUATION. The following tests were made on various strap-through circuits:

1. Four wire straps were changed to two wire straps. This solved the conversion problem with no noticeable drop in the quality of the circuits tested.

2. Circuits were reengineered to place 20 cps to 1600 cps converters at each terminal allowing 1600 cps to pass thru all strap-throughs.

3. Converters, telephone telegraph TA-182's were installed at the strap through location between the PCM equipment and the AN/TCC-13. This procedure worked satisfactory but will require planning for detailed locations of equipment and the availability of TA-182 converters.

(c) RECOMMENDATIONS. PCM circuits should be engineered to comply with paragraphs b.1 or b.2 above, depending on the conversion capabilities of the terminals.

c. Training:

(1) Inadequate functional training of 31M's.

(a) OBSERVATION. This unit has noted that personnel school trained in MOS 31M are not sufficiently qualified to perform their duties without a significant amount of on-the-job training.

(b) EVALUATION. This is evident with newly assigned personnel who are required to operate the Pulse Code Modualtion (PCM) equipment.

(c) RECOMMENDATIONS. Recommend that the program of instruction for the MOS 31M course be expanded to include instruction on the PCM systems, especially if the student is to be assigned to RVN. An alternative would be to assign all personnel in the MOS 31M directly to the PCM school at SEASS prior to assigning them to a unit.

d. Intelligence: None.

e. Logistics:

(1) RF Deck of the T-368 Transmitter

(a) OBSERVATION. Problems are being encountered in the RF deck of the T-368 Transmitter with modification kit 11-5820-258-35/3. The large 6000 volt capacitor is shorting out through the phenolic board.

(b) EVALUATION.. This unit's electronics maintenance facility has determined the cause of the shorts to be "dust".

(c) RECOMMENDATION. None at this time.

(2) Prescribed Load List

(a) OBSERVATION. The PLL's for companies of this battalion are excessively high due to the inability of direct support (185th Maintenance Battalion) to issue repair parts required to fill our PLL's. Listed below are the number of line items, the number at zero balance and the percent at zero balance:

Line Items - 3710
Number at zero balance - 1558
Percent at zero balance - 41.9%

(b) EVALUATION. The number of fills on normal priority 12 requisitions is very inadequate. Only 10.8% of the request for parts submitted in the last ninety days have been filled. 5114 priority 12 requisitions have been submitted in the last 90 days and only 516 have been filled. The low percentage of fill is due to the fact that direct support does not have the parts required on hand. The ASL of the 185th Maintenance Battalion is approximately 55% at zero balance.

(c) RECOMMENDATIONS. That command emphasis be directed in the area of repair parts required to bring the battalion's PLL zero balances up to an acceptable level.

(3) Red Ball Requisitions

(a) OBSERVATIONS. Red Ball support is not as unfavorable as the support received on priority 12 request, however the Red Ball System is not operating satisfactorily. Listed below are the number of Red Ball request submitted in the last 30 days and the last 60 days with the number of fills and percent of fills:

Number of Red Balls submitted in last 30 days: 261
Number of Red Balls filled in last 30 days: 67
Percent filled in last 30 days: 25.6%
Number of Red Balls submitted in last 60 days: 490
Number of Red Balls filled in last 60 days: 151
Percent of fills in last 60 days: 30.9%

SCCVUG-FF-SC
SUBJECT: Operational Report of Headquarters, 44th Signal Battalion for Period Ending 30 April 1968, (RCS CSFOR-65) (R1)

(b) EVALUATION. The percent of fills in the last 60 days for the battalion was 30.9% and the percent of fills in the last 30 days was 25.6%. Considering the criticality of the battalion's mission and the high deadline rate at the Electronic Maintenance Facility, the percent of fills on Red Ball request is inadequate.

(c) RECOMMENDATIONS. That command emphasis be directed in the area of Red Ball requisitions in order to obtain a higher percentage of fills on Red Ball request.

f. Organization: None.

g. Other: None.

2 Incl
as

STANLEY J. LUARTE
Lieutenant Colonel, SigC
Commanding

DISTRIBUTION:
3 - Assistant Chief of Staff for Force Development, Department of the Army (ACSFOR, DA) Washington, D.C. 20310
1 - Commanding General, USASTRATCOM, Fort Huachuca, Arizona, 85613
2 - Commanding General, CINCUSARPAC, ATTN: GPOP-DT, APO 96558
3 - Commanding General, USARV, ATTN: AVHGC-DST, APO 96375
1 - Commanding General, 1st Signal Brigade (USASTRATCOM), ATTN: SCCVOP, APO 96384
1 - Commanding General, USASTRATCOM-PAC, Schofield Barracks, Hawaii, APO 96557
2 - Commanding Officer, 160th Signal Group, APO 96491

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SCCVUG-OP (15 May 68) 1st Ind
SUBJECT: Operational Report of Headquarters, 44th Signal Battalion for Period Ending 30 April 1968, (RCS CSFOR-65) (R1)

DA, HQ, 160th Signal Group, APO 96491 30 MAY 1968

TO: Commanding General, 1st Signal Brigade (USASTRATCOM), ATTN: SCCVOP, APO 96384

1. The following comments apply to information contained in paragraphs as indicated:

a. Paragraph 2c(1) of Section 2. To compensate for the insufficient training of operator (MOS 31M) personnel on pulse code modulation (PCM) equipment, the Southeast Asia Signal School (SEASS) has been conducting two nine-day classes monthly on the AN/TRC-110/117 and AN/GRC-50 equipment since January 1968. Eighty-seven enlisted men completed this training through 30 April 1968. Starting 3 June 1968, the number of classes will be doubled. Considering the loss of time on the job and the resources required to continue this training at the SEASS, concur in the recommendation that adequate training on this equipment be incorporated into the CONUS MOS 31M course.

b. Paragraph 2e(3) of Section 2. The low fill percentage of Red Ball requisitions is attributed to the high zero balance at support activities. The Group Materiel Readiness Expeditor is monitoring this program on a continuing basis. In all cases where the requisitions were not filled, non-availability of the requested items at the support activity was verified. It is therefore recommended that action be initiated at the Department of the Army level to ensure adequate stockage of materiel at depot level in order to provide timely response to demands placed on the supply system.

2. Concur in the commander's observations, evaluations, and recommendations, as amplified above.

Blaine O. Vogt
BLAINE O. VOGT
Colonel, Sig
Commanding

SCCVOP-CR (15 May 68) 2d Ind
SUBJECT: Operational Report of Headquarters, 44th Signal Battalion for Period Ending 30 April 1968, (RCS CSFOR-65) (R1)

DA, HQ, 1st Sig Bde (USASTRATCOM), APO SF 96384 9 JUN 1968

TO: Commanding General, United States Army Vietnam, ATTN: AVHGC-DST, APO SF 96375

1. Subject report is forwarded in compliance with USARV Regulation 525-15.

2. Concur in the Commander's observations, evaluations, and recommendations as indorsed with the following comments:

a. Item: IBM 360/20 Vanised Computer, 2b(2), p.3. A study conducted by the 160th Signal Group concerning the temperature control of the vans was furnished to all groups in the Brigade in May 1968.

b. Item: Inadequate Functional Training of 31M's, 2c(1), p.4, with paragraph 1a, 1st Indorsement. A message has already been sent to the Signal School at Fort Gordon requesting clarification on the amount of training received by personnel on orders for Vietnam.

c. Item: Prescribed Load List, 2e(2), p.5. Command emphasis is being placed with the supply support facility in an effort to reduce PLL zero balances. It is the policy of this headquarters to make staff visits to units maintaining the highest percent of zero balances. This visit includes liaison with the supply support facility.

FOR THE COMMANDER:

MERRELL H. SMITH
LTC, GS
Acting Chief of Staff

Copy furnished:

Commanding General, United States Army Strategic Communications Command, ATTN: SCCOP, Fort Huachuca, Arizona, 85613

AVHGC-DST (15 May 68) 3d Ind CPT Arnold/dls/LBN 4485
SUBJECT: Operational Report of Headquarters, 44th Signal Battalion for Period Ending 30 April 1968, (RCS CSFOR-65) (R1)

8 JUL 1968

HEADQUARTERS, US ARMY VIETNAM, APO San Francisco 96375

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT, APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1968 from Headquarters, 44th Signal Battalion.

2. Reference item concerning coaxial cable CX 4245/G, page 2, paragraph 2b(1):

a. TM 11-5995-205-15, 5 Dec 66, cable assembly, special purpose electrical, CX 4245/G, specifies sag allowances versus span lengths. For a 200 foot span, the sag is specified as 72 inches; attempting to pull the cable taut would cause it to stretch and break. For spans over 200 feet, the use of messenger cable is required. The recommendation that the CX 4225/G should be manufactured as a self supporting cable, and more conductive to field and combat conditions, involves questions of additional weight and cost. Recommend unit submit an Equipment Improvement Recommendation (EIR) in accordance with TM 38-750.

b. Where messenger cable is used to support the CX 4245/G on poles or towers carrying power lines, the messenger cable should as a precaution, be grounded to prevent shock to linemen.

FOR THE COMMANDER:

JOHN N. GETCHELL
Captain, AGC
Assistant Adjutant General

Cy furn:
HQ 44th Sig Bn
HQ 1st Sig Bde (USASTRATCOM)

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GPOP-DT (15 May 68) 4th Ind
SUBJECT: Operational Report of HQ, 44th Sig Bn for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 26 JUL 1968

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorsements and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

C.L. SHORTT
CPT, AGC
Asst AG

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COMMANDERS AND STAFF OFFICER

During the reporting period the Commander and Staff Officers were as follows:

Battalion Commander - LTC Stanley J. Duarte

Battalion Executive Officer - MAJ Cornell C. McCullom Jr.

Adjutant - CPT Robert C. Louten

S-3 Officer - MAJ Gerald E. Lyons

S-4 Officer - CPT Robert Brincfield

HHD Commander - CPT William L. Dunlap

Co B Commander - CPT Robert C. Hill

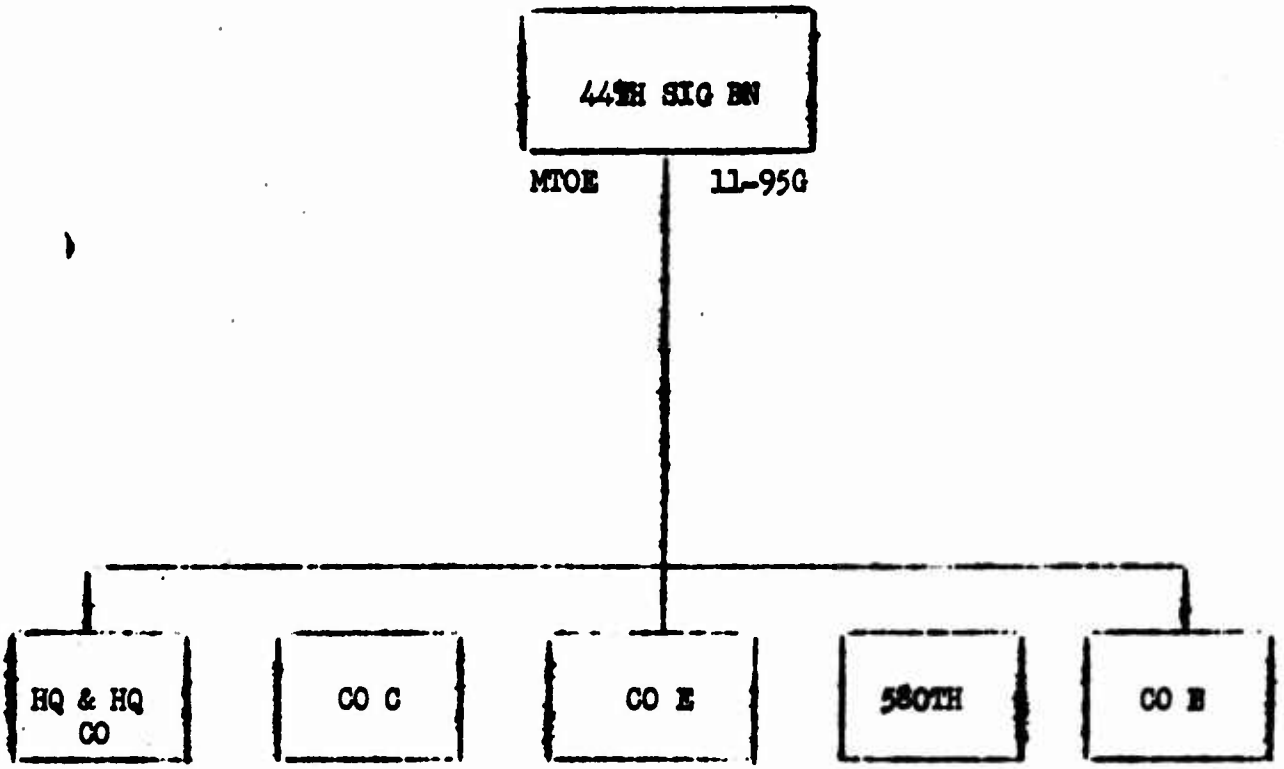
Co C Commander - CPT Frank R. McLeskey

580th Tel Opns Commander - CPT Donald P. Stewart

Co E Commander - CPT Walter Gammons

INCLOSURE 1

COMMAND OPERATIONS SIGNAL BN (ARMY)



HQ & HQ CO - MTOE 11-96G
CO C - ATOE 11-98G
CO E - ATOE 11-98G
580TH - ATOE 11-97G
CO B - ATOE 11-87E

INCLOSURE 2

15 UNCLASSIFIED

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DOCUMENT CONTROL DATA - R & D

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4. DESCRIPTIVE NOTES (Type of report and inclusive dates)

Experiences of unit engaged in counterinsurgency operations, 1 Feb - 30 Apr 1968

5. AUTHOR(S) (First name, middle initial, last name)

CO, 44th Signal Battalion

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13. ABSTRACT

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17 The following items are recommended for inclusion in the Lessons Learned Index:

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